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ABSTRACT

This report presents evaluation results of an Oklahoma City Public Schools bilingual and multicultural education program to increase achievement levels and improve multicultural attitudes among Spanish speaking elementary school children of limited English proficiency. Results of English and Spanish tests of language proficiency in kindergarten to grade 2 who were tested on the acquisition of basic concepts considered to be prerequisites for language learning similarly showed significant performance gains. Teacher ratings indicated increases in students' positive attitudes toward their own culture and toward other cultures. Staff responses to questionnaires on the quality of inservice training and parent perceptions of classes in English as a Second Language for parents were generally favorable. In addition, parents expressed satisfaction with the bilingual education program for their children. Principals of the schools in which the program was implemented recommended that the program be continued, that new and updated materials be provided, and that further inservice training for teachers and aides be conducted. (Author/MJL)

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EVALUATION OF 1980-81 BILINGUAL TITLE VII PROGRAM

OKLAHOMA CITY PUBLIC SCHOOLS
THOMAS PAYZANT, SUPERINTENDENT
OKLAHOMA CITY, OKLAHOMA

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EXECUTIVE SUMMARY

Oklahoma City's Title VII Bilingual Education Program is funded under the Federal Elementary and Secondary Education Act (P.L. 92-318). The primary purpose of the Bilingual Education Act has been to establish equal educational opportunity for all children, through the establishment and operation of education programs using bilingual education practices and methods. Specifically, the intent is to provide for children of limited English proficiency, classroom instruction designed to enable them, while using their native language, to achieve competency in the English language.

The Oklahoma City Public Schools Bilingual program began in January of 1977, in three target elementary schools (Westwood, Riverside, and Shidler), which have high concentrations of Spanish speaking students. For the current grant period (1980-81), a fourth school (Longfellow) has been added to the program.

Generally, the goal of the Oklahoma City Public Schools Bilingual Title VII Program continues to be to provide an effective program of bilingual/multicultural education which is designed primarily to increase the level of achievement for children of limited English speaking ability. The grant provides four areas of measurement (objectives), considered to be important in determining the progress made by these limited English proficiency (LEP) students in the following areas: (1) English comprehension, (2) Spanish vocabulary and comprehension, (3) Mastery of basic concepts, which are presumed to be prerequisites for language learning (and therefore predictors of later school success), and (4) Multicultural classroom appreciation.

Results

The LAS test was utilized to determine the gains in English and Spanish oral linguistic proficiency by participating students in grades K-5. Pre-test results revealed, as would be expected, that a much larger percentage of students began the year with lower competency levels in English than Spanish. Within the constraints noted, the objective of raising 70% of these LEP students' oral proficiency in English by a full level was met, as approximately 79% made a one level (standard deviation) gain (or better) during the year. In analyzing the very low competency students' gain during the year, highly significant ($p < .001$) gains were noted at each grade level (K-5), as well as substantially larger raw score mean gains, than the overall population. In all grades (K-5), for all groups, the mean gains in English oral proficiency were highly significant (at least $p < .002$) for all groups of students.

The same students' performance on LAS Spanish oral proficiency was not as substantial as their English performance, yet in most cases (and most grades) they produced significant gains. Within limitations, approximately 44% (less than the 70% specified by Objective 1) of the students showed a one level (standard deviation) gain or better during the year. Basically, only at grade 2 and grade 5 did they not show significant (at least $p < .02$) mean gains between pre and posttesting. This lower percentage of gains in Spanish appears to be a reflection of the emphasis of the Title VII program toward promoting English acquisition by these LEP students, in an attempt to make them more able to compete and excel in English speaking classrooms. It is important to note, that although the students did not improve as dramatically on the Spanish portion of the LAS, as they did on the English portion, sub-

stantial gains in Spanish proficiency were reported. This is supported by the data from the Prueba de lectura, Serie Interamerica results, which showed that students' vocabulary and comprehension reading skills gains in Spanish, were equal to or higher than the national norming samples for almost every grade. For each grade, first through fifth (except 3rd grade, which had a slight NCE drop) the NCE gains were greater than zero, and overall, for all students, across all grades, showed an NCE gain of +1.34 (exceeding Objective 3). Any NCE gain greater than zero indicates that progress was made in excess of predicted progress based on national norms for the year.

For the early elementary students (grades K-2), the results of the Boehm Test of Basic Concepts showed that overall, approximately 80% made gains during the year (thereby meeting Objective 2). The BTBC reportedly measures acquisition of basic concepts, which are presumed to be prerequisites for language learning, and therefore predictors of later school success. Further, regardless of whether the student's dominant language was English or Spanish, the mean raw score gains in each grade (K-2) were highly significant (most less than $P < .001$) for the year.

Finally, although teacher ratings are totally subjective, they indicate that Objective 4 was met, since the Bilingual teachers and aides rated 87.5% of the Title VII students as having a positive attitude toward their own, as well as the other cultures represented in their classrooms (an increase of 3% over their rating at the start of the year).

Participants' Perceptions of the Program

School Administrators. The principals at the school sites all reported they had attended inservice training activities presented by the Title

VII program. All believed that the Title VII staff made an effort to provide information about the purposes and services available through the program, and their Title VII building staff regularly attempted to transmit information to them concerning problems or progress in working with the students. They also felt that the aides were invaluable in providing an interface between the staff and the Spanish speaking students, and their Spanish speaking parents. When asked for recommendations for improvement, they unanimously stated the program should be continued, with emphasis on new and updated materials, and further inservice and training for teachers and aides at the building level.

Parents. A total of 102 parents from the four target schools responded to the Title VII parent survey. Of these 102, 91% stated they had received information (in both Spanish and English) explaining both the purpose and goals of the Oklahoma City Public Schools Bilingual Program. Most (80-90%) parents also reported that they had been notified by their child's school throughout the year, (again in English and Spanish) of occurrences such as report cards, parent conference reports, notes from school, necessary immunization information, and parent committee meetings.

Additionally, most (over 90%) of the parents felt that their child had benefited from the Bilingual Education program, and they expressed the importance to them that their children were being taught both English and Spanish, as they wanted their children to continue their bilingual capabilities. Most of the parents volunteered that they had witnessed improvements in their children's progress in school, and are pleased with the program. A large number of them also commented that they were very grateful for the schools' concern and understanding, and appreciated receiving needed information in

Spanish. Not a single parent stated that they felt the program should be discontinued.

Staff training and perceptions. The Title VII staff attended inservice training and workshops throughout the year, ranging in duration from 1-2 days, to a 2-week pre-school workshop. Between 75-100% on each occasion rated the quality of the workshop "good" or "very good". Roughly the same percentages felt the emphasis of the workshops were directly applicable to their work, and most materials and topics were relevant and necessary. The majority of individuals reported each time that more training and assistance would be useful, and suggested future topic or training areas included: (1) more training to teach Spanish, (2) introduction of new materials, (3) more application of ESL in science, math and literature, (4) more training in arts, crafts, and games, and (5) more samples of visual presentations for ESL.

Parent English Classes. A final aspect of the Bilingual program involved ESL training for parents of Title VII students, weekly at the Capitol Hill Library. The classes were conducted in the evening, and approximately 50 parents were "regular" participants. The parents responded that they basically liked everything about the classes, and would make no recommendations for improvement. The majority of them (over 80%) felt the classes had helped them in their everyday communications, and had helped them in their jobs. Most felt they needed to learn more, and wanted to continue.

Summary. The vast majority of responses by all participants and parents in the surveys were favorable. School administrators, staff, and parents felt the program was beneficial to the students, enabled them to show progress in school, and provided the ability for much better inter-

action between the students and teachers, as well as the parents and their children's school. The parents were appreciative of their childrens' progress in English acquisition, and expressed their desire to maintain their children's Spanish proficiency as well. The parents also felt the schools had kept them well informed as to student progress. All respondents were relatively unanimous in their desire to see the program continue.

Recommendations

1. In the evaluator's opinion, given the data (results) and the favorable comments by participating staff and administrators, and the overwhelming favorable perceptions by the participating student's parents, Federal funding should continue to be sought, and/or alternate means for financing the continuation of the Title VII program should be pursued.

2. Within the obvious monetary constraints, emphasis should also be placed on providing new and updated materials, and instructional aids and devices, as mentioned by both staff and school administrators.

3. Objectives should be revised to more accurately reflect Program emphasis. For example, based on the history of the data, and the stated program emphasis on English acquisition by LEP students, Objective 1 should be revised to reflect different expectations of performance by students taking the LAS tests. Different growth parameters would be expected on the English and Spanish portions, and should be more closely equated to stated yearly objectives.

4. Revise or eliminate Objective 4. The rating of the students' positive cultural awareness is totally subjective, and the device itself does not provide particularly meaningful data, or accurate measurement of the desired behavioral attributes.

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CHAPTER I

INTRODUCTION

Oklahoma City's Title VII Bilingual Education Program is funded under the Federal Elementary and Secondary Education Act (P.L. 92-318). The primary purpose of the Bilingual Education Act has been to establish equal educational opportunity for all children, through the establishment and operation of education programs using bilingual educational practices, techniques, and methods. Specifically, the intent is to provide for children of limited English proficiency, classroom instruction designed to enable them, while using their native language, to achieve competency in the English language.

The Oklahoma City Public Schools Bilingual program began in January of 1977, in three target elementary schools (Westwood, Riverside, and Shidler), which have high concentrations of Spanish speaking students, and was funded for $58,462. For the current grant period (1980-81), a fourth school (Longfellow) has been added to the program, and the funding level for these four schools for 1980-81 was $115,048.

Evaluation of the 1980-81 Bilingual Education Title VII Program was conducted to both meet Federal requirements, and to provide local decision-makers with information on which to base any necessary decisions concerning continuation and/or expansion of the program. Additionally, this evaluation is designed to provide information concerning the effectiveness of the current program, and to illuminate any necessary upgrading of project services.

The primary purposes of this evaluation are:

- To meet existing requirements of the United States Office of Education related to funding.

- To assess project progress in meeting objectives, and implementation of project activities.

Title VII Program Goals

The general goal of the Oklahoma City Public Schools Bilingual Title VII Program continues to be to provide an effective program of bilingual/multicultural education which is designed primarily to increase the level of achievement for children of limited English speaking ability, as well as to provide opportunities for student appreciation of cultural pluralism in participating classrooms.

Title VII Program Objectives

During the 1980-81 school year, the program objectives, as specified by the grant, were designated as follows:

1. By May 30, 1981, 70% of limited English proficiency students in grades K-5 will show a gain of one standard deviation (based on norming group) between pre and posttesting on the Language Assessment Scales.

2. By May 15, 1981, 80% of kindergarten, first, and second grade students will show gain on the Boehm Test of Basic Concepts between pre and posttesting in their dominant language.

3. By May 15, 1981, gain in the mean normal curve equivalency (NCE's) score of participating students, as measured by pre and posttesting with Prueba de Lectura, Serie Interamerica will be greater than zero.

4. By May 15, 1981, 70% of participating students will exhibit positive attitudes toward their own culture, as well as other cultures represented in the classroom, as measured by the Oklahoma City Inferred Cultural Attitude Scale.

Program Description

The 1980-81 Bilingual Education Title VII Program is an expansion of the first year grant (1976-77). The three original target elementary schools - Westwood, Shidler, and Riverside - continue to be locations for current grant efforts and a fourth school, Longfellow (5th Year Center) has been added for 1980-81. Title VII funds were utilized for 8 of the bilingual aides in second through the fifth grades, in the four schools during 1980-81. District funds were utilized for 9½ Title VII aides in grades K-2. In addition to providing necessary teaching materials and staff training, Title VII funds financed the 8 bilingual teacher aides, one program coordinator, one program resource specialist, and educational opportunities and activities for participants' parents.

Activities conducted by the classroom teachers (and their bilingual teacher aides) were designed to enhance participating students' oral, reading, and writing skills in both English and Spanish. Both languages were utilized in creative arts, subject area teaching/tutoring, and cultural enrichment activities.

Evaluation Objectives

Language Proficiency Skills

1. To assess changes in English and Spanish language proficiency levels of limited English proficiency (LEP) students, and non-English speaking students, in grades K-4 at Westwood, K-5 at Riverside and Shidler, and 5th grade at Longfellow.

2. To ascertain the percentage of limited English proficiency and non-English speaking students making a gain of one standard deviation (one level) or more between pre and posttesting on Language Assessment Scales (LAS).

3. To compute potential statistical significance of changes in students' proficiency levels.

Levels of Concept Mastery

1. To assess differentials in levels of basic concept mastery of participating students in grades K-2, between pre and posttesting on the Boehm Test of Basic Concepts (BTBC).

2. To ascertain the percentage of participating K-2 students making a gain between pre and posttesting on BTBC.

3. To compute potential statistical significance of changes in students' basic concept mastery levels.

Spanish Vocabulary and Comprehension Reading Level

1. To assess differentials in mean normal curve equivalency (NCE) scores for participating students in grades K-5, between pre and posttesting on Prueba de Lectura, Serie Interamerica.

Cultural Attitudes

1. To assess the number and percent of participating students in grades K-5 who exhibited positive attitudes toward their own and other cultures represented in the classroom on pre and/or posttesting on the Oklahoma City Inferred Cultural Attitude Scale.

Staff Training

1. To assess participating staff's perceptions of in-service training provided by the program.

Administrators Assessment of Program

1. To ascertain program needs/strengths/weaknessess, as perceived by the appropriate administrators, in the target schools.

Parent Assessment of Program

1. To provide a description of the program needs/strengths/weaknesses in effectively communicating with participating students' parents, as perceived by parents of those students.

Design and Methodology

The following instruments were utilized as measurement devices to determine the amount and direction of changes in participating students' Spanish and English proficiency skills, mastery of basic concepts, Spanish vocabulary and reading comprehension skills, and cultural attitudes.

1. Language Assessment Scales (LAS), Linguametrics, Inc.
   The LAS tests were administered individually to participating students in the Spring of 1981. Students' scores on the LAS from the Spring of 1980 were utilized as "pretest" scores, while the Spring, 1981 scores utilized as posttest scores. Any student who did not have a pretest score from spring of 1980 was pre tested in the fall of 1980. Each student (when possible) was tested in both English and Spanish. The LAS is a convergent assessment measure; it provides an overall measure of oral linguistic proficiency, based on students performance across four linguistic subsystems (phonemic, referential, syntactical, and pragmatic). Results of the test provide a general understanding of linguistic proficiency, relative language proficiency in English and Spanish, identification of linguistic problems, breakdown of linguistic development by subsystem, and a set of prescriptions for each student tested.

   Students are ranked by oral production proficiency levels (as follows) based on their total score test results:

   -Level 1. Minimal Production: production of only isolated words and expressions (54 or below).

   -Level 2. Fragmented Production: production of a few isolated phrases and fragmented or very simple sentences (55 to 64).

   -Level 3. Labored Production: production of complete sentences with systematic errors in syntax and fact (65 to 74).

-Level 4. Near Perfect Production: production of coherent sentences with native-like fluency and only occasional errors in syntax or vocabulary (75 to 84).

-Level 5. Perfect Production: production of complete sentences which are coherent, syntactically correct for developmental age, and reflect accurate reproductions of the story (85 to 100).

Pre and posttest scores were compared to determine whether 70% of the K-5 limited English proficiency, and non-English speaking students, made a gain of one standard deviation (one level), and whether or not the changes in scores were statistically significant (see Results Section for description of the particular statistical analyses of each component).

2. Boehm Test of Basic Concepts (BTBC), The Psychological Corporation. This instrument was selected to measure basic understandings of concepts which are assumed to be prerequisites for language learning and later school success. The BTBC was administered as a group test to each class (K-2) in the Fall of 1980, and again in the Spring of 1981. Students were tested, pre and post, in their dominant language: Spanish or English. The test is divided into 50 items; scores are based on number of correct responses to the items. Pre and posttest scores were compared to determine whether 80% of the participating students in grades K-2 showed a gain, and whether or not the changes in scores were statistically significant (see Results Section).

3. Prueba de Lectura, Serie Interamerica, Guidance Testing Associates. This instrument was selected because it was the only one of the Spanish reading tests that approached the national norms specified by federal regulations. The test measures students' vocabulary and comprehension reading skills in Spanish. Tests were administered in target schools to grades 1-5 in the Fall, 1980. These scores were utilized as pretest scores, and the Spring, 1981 scores used as the posttest. Comparisons were made of the mean pre and post normal curve equivalency scores (NCE's) to determine if those scores in each affected grade showed a gain (see Results Section).

4. Oklahoma City Inferred Cultural Attitude Scales
   This instrument is a local adaptation of the Inferred Self-Concept Scale from Bernard Cohen Research and Development Company. The scales are completed on each K-5 participating student by his/her teacher in the Fall of the year (or upon entrance to class), and in the Spring. The instrument consists of items designed to assess students' attitudes toward their own cultures and other cultures represented in the classroom. The four-point scale ranges from "Never" displaying a particular positive attitudinal indicator (1) to "Always" displaying a positive attitude on the indicator (4). Total scores may range from 8 to 32, with average scale scores ranging from 1 to 4. An assessment was made of the frequency with which positive attitudes were displayed among participating students on the pre and posttest separately (as the program objective states only that positive attitudes will be exhibited by a percentage of students, with no stipulation that there be any change between pre and post scores).

5. Locally Developed End-of-Year Surveys
   These questionnaires were developed to assess strengths and weaknesses of the Bilingual Program, as perceived by staff connected with the program, and parents of participating students. Open-ended questions were also included to obtain specific input regarding suggested changes to be made in the program.

Results and Discussion

Objective 1. By May 30, 1981, 70% of limited English proficiency students in grades K-5 will show a gain of one standard deviation (based on norming group) between pre and posttesting on the Language Assessment Scales (LAS).

In analyzing the performance of Title VII students on the LAS test results, several limitations in the data are apparent, and require explanation prior to analysis. First of all, the objective requires providing a percentage of students who show a gain of one standard deviation (or one "level", as was shown in the description of the LAS test, see page 5) between pre and posttesting. These standard deviations (levels) are based on national norming data from either monolingual English or Spanish speaking students taking the test in their dominant language. The (5) levels range from a raw score of 54 to 100, with all scores lower than 54 (level 1) labeled "minimal" production, and scores between 85 and 100 (level 5) labeled "perfect" production. The first limitation in analyzing the data, according to the objective as written, concerns that group of students whose pretest score is already at level 5 (above 85 raw score). Regardless of the degree of improvement they showed between pre and posttesting, they could not improve by a standard deviation, because they started at the highest possible level. Furthermore, traditional significance testing on these scores would be very biased, due to a "ceiling effect" at that level of responding. Therefore, for the purpose of this analysis, very high level initial competence students were not included (total of only 19 students in English and 9 in Spanish).

A further constraint concerns those students who fall below a raw score of 54. A student who scored a 52 on the pretest and a 56 on the posttest would be considered as moving up a level. However, a student could score a 22 on the pretest and improve their score to 52 on the posttest and be

represented as not making a standard deviation gain. Therefore, the students who scored less than 45 on the pretest will be analyzed separately, to determine if they made significant gains, regardless of whether they crossed the boundary for Level 2 ("Fragmented" production). The raw score of 45 was selected because it represents the equivalent of one standard deviation (10 points) below the Level 2 boundary.

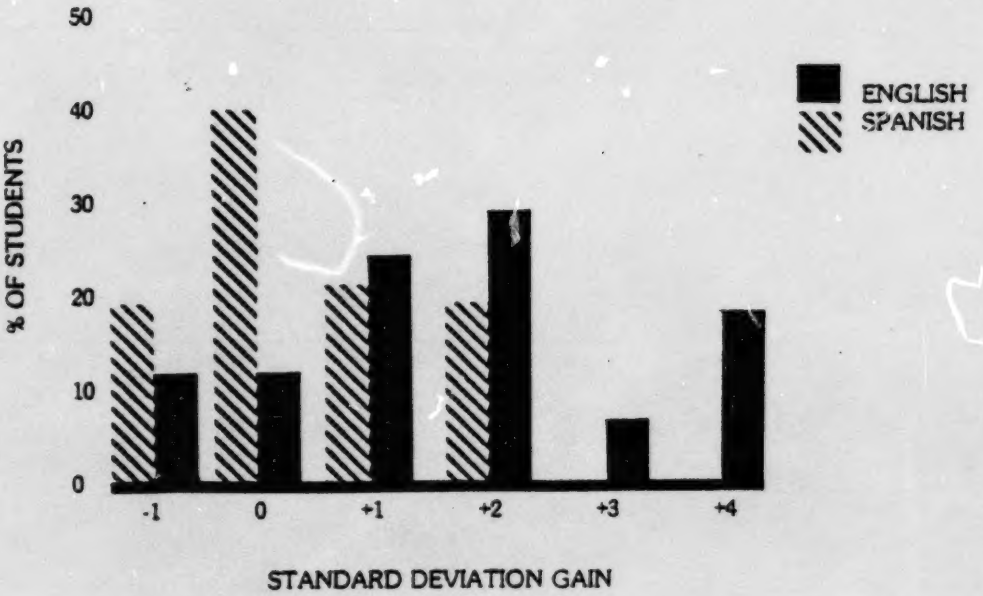
Analysis by Grades

Kindergarten

Figure 1 shows the breakdown of students (by percentage) by standard deviation gain for Kindergarten.

Figure 1

Kindergarten



KINDERGARTEN ANALYSIS

Lang	N	Pre X	Post X	diff	S error	t-Value	df	2-tail Prob.
English	17	56.35	71.35	-15.00	4.05	-3.70	16	.002*
Spanish	47	56.51	60.89	- 4.38	1.28	-3.43	46	.002*

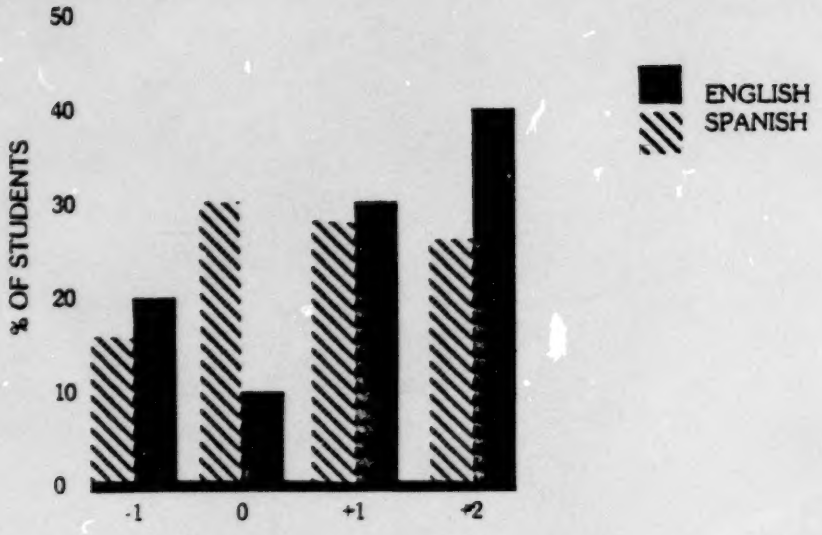
Figure 1 shows that of those students whose initial competency was within one standard deviation of "minimal" production, 76% showed a one standard deviation (level) increase (or better) in the English portion. For the Spanish portion, 40% showed an increase of at least one level. The analysis of these scores by t-test for correlated samples (repeated measures on the same individual), reveals that the students made significant gains in both English and Spanish (see Figure 1).

Two points are apparent from these data. First of all, for Kindergarten, it is obvious (as would be expected) that more individuals have higher initial competency in Spanish than in English. Second, although the students made significant gains in both languages, the percentage of students making a one level jump was much higher in English. This probably reflects the emphasis of the Bilingual program on primarily increasing competency in English for these limited English speaking students.

Grade 1

Figure 2 shows the breakdown by percentage of students by standard deviation gain for grade 1.

Figure 2
Grade 1



STANDARD DEVIATION GAIN

GRADE 1 ANALYSIS

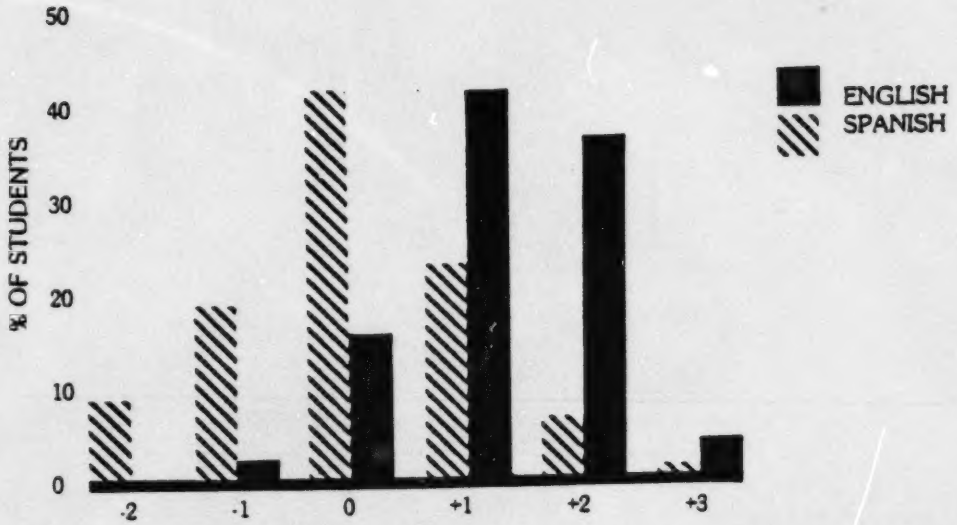
Lang	N	Pre $\bar{x}$	Post $\bar{x}$	diff	S error	t-Value	df	2-tail Prob.
English	20	56.65	68.05	-11.40	2.94	-3.88	19	.001*
Spanish	43	59.70	65.42	- 5.72	1.33	-4.29	42	.001*

As Figure 2 shows, for grade 1, 70% made one standard deviation gain or better in English, while 54% made one standard deviation gain or better in Spanish. Again, the t-test for correlated sample showed significant gains were made in both languages. These results are consistent with Kindergarten.

Grade 2

Figure 3 shows the breakdown of percentage of students by standard deviation gain for Grade 2.

Figure 3
Grade 2



GRADE 2 ANALYSIS

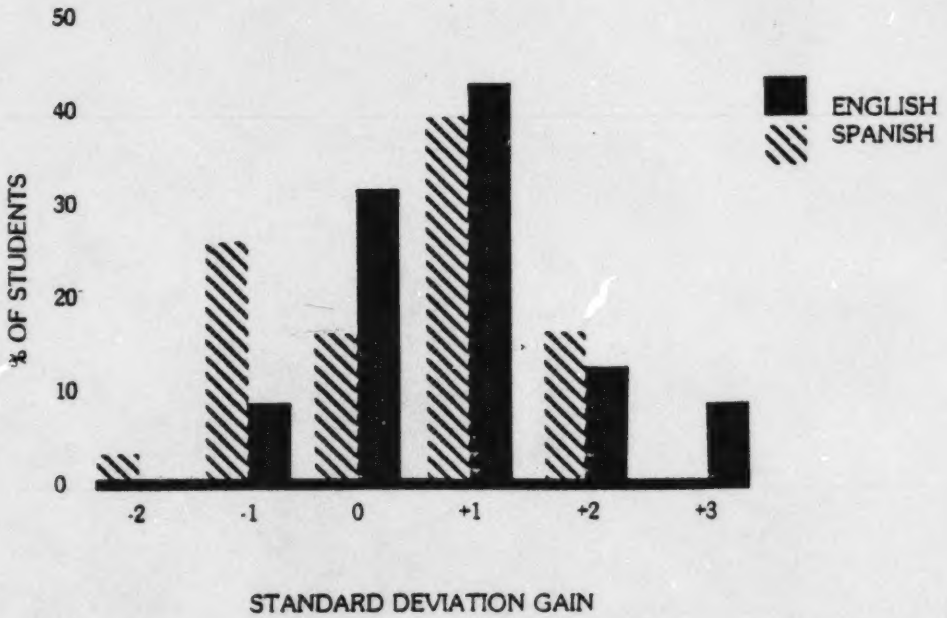
Lang	N	Pre $\bar{x}$	Post $\bar{x}$	diff	S error	t-Value	df	2-tail Prob.
English	49	63.35	75.06	-11.71	1.20	-9.78	48	.001*
Spanish	70	67.94	68.19	- 0.25	1.16	-0.21	69	.83

Figure 3 shows that for grade 2, 82% made one standard deviation gain or better in English, while 31% made one standard deviation gain or better in Spanish. This is a lower percentage than previous grades for Spanish and the t-test reflects that the mean gain for Spanish between pre and posttesting in 2nd grade, was not significant.

Grade 3

Figure 4 gives the breakdown of percentage of students by standard deviation gain for grade 3.

Figure 4
Grade 3



GRADE 3 ANALYSIS

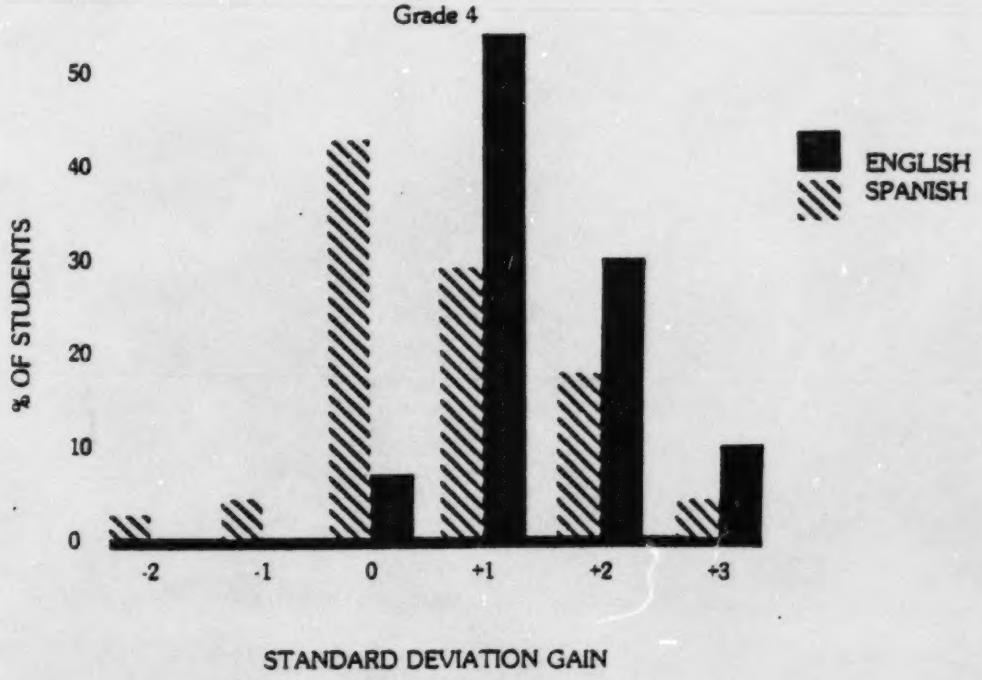
Lang	N	Pre $\bar{x}$	Post $\bar{x}$	diff	S error	t-Value	df	2-tail Prob.
English	26	69.81	78.92	-9.11	2.00	-4.55	25	.001*
Spanish	38	65.60	69.89	-4.29	1.55	-2.77	37	.009*

Figure 4 shows that for grade 3, 61% made one standard deviation gain or better in English, while 55% made one standard deviation gain or better in Spanish. Once again, the t-test demonstrates that significant mean gains were made in both languages.

Grade 4

Figure 5 gives the breakdown of percentage of students by standard deviation gain for Grade 4.

Figure 5



GRADE 4 ANALYSIS

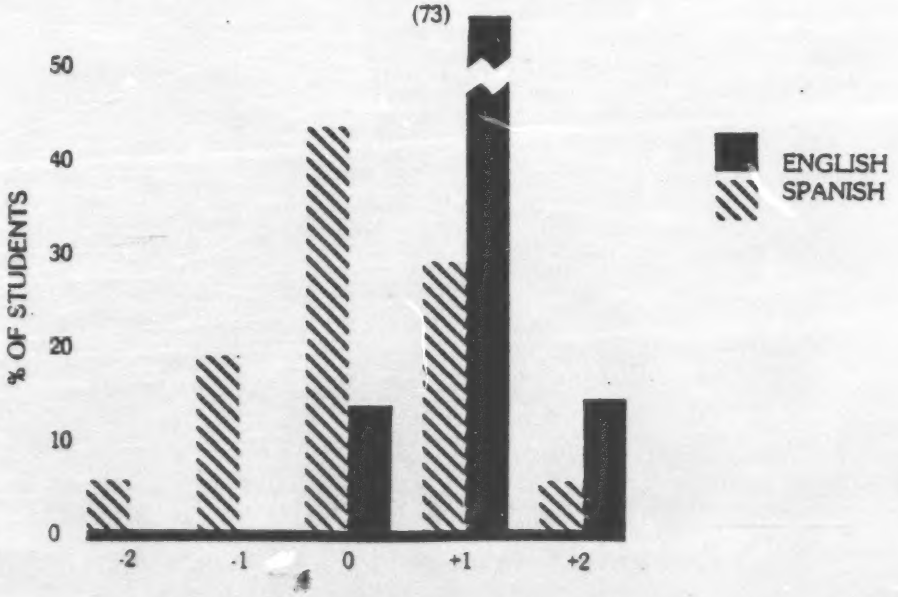
Lang	N	Pre $\bar{x}$	Post $\bar{x}$	diff	S error	t-Value	df	2-tail Prob.
English	30	70.4	84.33	-13.93	1.40	-9.94	29	.001*
Spanish	45	68.82	76.11	- 7.29	1.32	-5.54	44	.001*

Figure 5 shows that for grade 4, 93% made one standard deviation gain or better in English, and 52% made one standard deviation gain or better in Spanish. Again the t-test shows significant mean gains were produced in both.

Grade 5

Figure 6 gives the breakdown by percentage of students by standard deviation gain for Grade 5.

Figure 6
Grade 5



GRADE 5 ANALYSIS

Lang	N	Pre $\bar{x}$	Post $\bar{x}$	diff	S error	t-Value	df	2-tail Prob.
English	15	70.33	80.00	-9.67	1.55	-6.22	14	.001*
Spanish	21	71.90	72.71	- .81	1.93	-0.42	20	.68

Figure 6 shows that for grade 5, 87% made one standard deviation gain in English, while 33% made a one standard deviation gain in Spanish. As with the 2nd grade, the t-test reveals that the mean Spanish gains for 5th grade were not significant.

Summary By Grades

Table 1 shows the percent by grade, and by language, of students making a one standard deviation (level) gain on the LAS.

TABLE 1

LAS Results By Grades

Grade	Language	N	% 1 Sd or greater
K	English	17	76%
	Spanish	47	40%
1	English	20	70%
	Spanish	43	54%
2	English	49	82%
	Spanish	70	31%
3	English	26	61%
	Spanish	38	55%
4	English	30	93%
	Spanish	45	52%
5	English	15	87%
	Spanish	21	33%
Total	English	157	78.98%
	Spanish	264	43.56%

As Table 1 shows, of those students who started within one standard deviation of the Level 1 "minimal" production boundary (raw score=54), almost 79% made a one standard deviation gain (one level) in English. Of those students who pre-tested within one standard deviation of "minimal" production in Spanish, approximately 44% made a one standard deviation gain (one level). A t-test for correlated samples (repeated measures on the same individual) for each grade revealed significant ($p < .002$) gains were made at every grade level for English, and significant gains ($p < .009$) were also made for every grade (except grades 2 and 5) in Spanish.

Several points are illuminated by these data. First, as would be expected, more individuals in each grade pretest at least within one SD of "minimal" production in Spanish as opposed to English. Given the population in the Title VII program this is not surprising. Second, even though significant learning gains are apparent in both English and Spanish, a far greater percentage of students (79% vs. 44%) made at least a one level (SD) gain in English. This appears to reflect the emphasis of the Title VII program, in teaching these limited English ability students to function in primarily English speaking classes (yet preserving their bilingual capabilities). Therefore, although the data tend to appear to reflect this emphasis, no provision for separation exists in the stated objective per se, so in essence, the objective as stated was only half met.

Low Initial - Competency Students. As was mentioned earlier, a portion of the students in grades K-5 pre-tested at least one standard deviation below the "minimal" production level (less than 45 raw score). Table 2 gives the breakdown by grade, and by language, of these students, and also represents the t-test for correlated samples (repeated measures) conducted

to determine if significant progress occurred, regardless of whether they made it to the 2nd Level ("Fragmented" production).

TABLE 2

Low Initial Competency Students

Grade	Language	N	Pre $\bar{X}$	Post $\bar{X}$	diff	Serror	t-Value	df	2-tail Prob.
K	English	35	25.77	53.80	-28.03	1.829	-15.32	34	.001*
	Spanish	4	37.50	57.75	-20.25	7.122	- 2.84	3	.06
1	English	29	26.72	51.52	-24.8	2.42	-10.24	28	.001*
	Spanish	5	34.80	42.40	- 7.60	6.82	- 1.11	4	.33
2	English	25	21.40	47.04	-25.64	2.96	- 8.67	24	.001*
	Spanish	4	27.00	43.00	-16.00	3.37	- 4.75	3	.018*
3	English	13	21.08	41.23	-20.15	3.05	- 6.61	12	.001*
	Spanish	5	17.40	39.80	-22.4	2.82	- 7.94	4	.001*
4	English	13	28.62	46.54	-17.92	3.98	- 4.51	12	.001*
	Spanish	2	31.00	53.00	-22.00	1.00	-22.00	1	.029*
5	English	8	25.75	47.13	-21.38	3.17	- 6.74	7	.001*
	Spanish	6	27.67	34.67	- 7.00	4.34	- 1.61	5	.17

Table 2 reveals several points of interest concerning these low initial competency students. First, as would be expected, the proportion by language is exactly opposite of the previous analysis. Far more students have very low initial competence in English than Spanish. However, consistent with the analysis to date, these students made highly significant gains in English in every grade ($p < .001$). The non-significant gains in grades K, 1, and 5, for Spanish are most probably an artifact of extremely small sample size, and/or large standard errors.

The pre-to-post means are also noteworthy. Note that for English,

the mean gains between pre and posttesting range from 17.9 to 28.0 (raw score). These are very substantial gains. Without the ability to compare these scores to a no-treatment control group, it is difficult to attribute all the gain to the program treatment effect. However, this magnitude of raw score gains is very unlikely ($p < .001$) to have occured by chance, and when considered with the previous analysis, which showed significant English gains at all grades for the more initally competent students, does tend to emphasize that these limited English proficiency students improved their English comprehension substantially during this school year relative to their starting position. Further, most of them improved their Spanish comprehension as well.

Another note of interest concerns the descending magnitude of initial low competency students in English. The number per grade decreases from 35 in Kindergarten to 8 in the 5th grade and may well be a reflection of previous Title VII efforts in past years. This seems intuitive, yet cannot be proved with this data.

Objective 2. By May 15, 1981 80% of kindergarten, first, and second grade students will show gain on the Boehm Test of Basic Concepts between pre and posttesting in their dominant language.

As mentioned earlier, the BOEHM measures mastery of basic concepts, which are presumed to be prerequisties for language learning, and therefore predictors of later school success. Each K-2 student took the test in their dominant language. The results by grade are shown in Table 3.

TABLE 3

BOEHM Results by Grade

Grade	N	Number of S's showing gain (%)	Number of S's same (%)	Number of S's decrease (%)
K	55	52 (94.5%)	2 (3.6%)	1 (1.9%)
1	64	53 (82.8%)	3 (4.7%)	8 (12.5%)
2	88	61 (69.3%)	8 (9.1%)	19 (21.6%)
Total	207	166 (80.2%)	13 (6.3%)	28 (13.5%)

As Table 3 shows, even though there were fluctuations by grade, 80.2% of all students tested in grades K-2 made gains between pre and posttesting, while 6.3% remained the same, and 13.5% showed a drop.

Table 4 gives the analysis by grade, and by dominant language, of whether the mean gains of the students in each grade were significant. Again, a t-test for correlated samples (repeated measures) was utilized.

TABLE 4

BOEHM Gains By Grade and Dominant Language

Grade	Language	N	Pre-Mean	Post-Mean	Diff	S error	t-Value	df	2-tail Prob.
K	English	17	29.41	40.53	-11.12	2.07	-5.37	16	.001*
	Spanish	38	26.16	35.92	- 9.76	1.34	-7.28	37	.001*
1	English	20	36.0	42.40	- 6.40	1.13	-5.67	19	.001*
	Spanish	44	33.59	38.48	- 4.89	0.76	-6.42	43	.001*
2	English	15	44.20	46.33	- 2.13	0.88	-2.42	14	.03*
	Spanish	73	41.08	43.79	- 2.71	0.55	-4.94	72	.001*

As Table 4 shows, for each grade, regardless of which language the students were tested in, significant gains were made between pre and posttesting.

Objective 3. By May 15, 1981, gain in the mean normal curve equivalency (NCE's) score of participating students, as measured by pre and posttesting with Prueba de Lectura, Serie Interamerica will be greater than zero.

The Prueba de Lectura, Serie Interamerica measures students' vocabulary and comprehension reading skills in Spanish. National Norms are provided for each testing dates (Fall and Spring), and students raw scores are translated into normal curve equivalency scores (NCE's). It should be emphasized that a mean NCE gain of zero between pre and posttesting does not imply that no learning has occurred. In fact, an average NCE gain of zero means that the student has maintained the pace of the national norming group for the year, relative to their pretest starting position. Any mean NCE gain greater than zero means the learning gains have exceeded the national norm at that grade level. Only students with both pre and posttest scores are included in this analysis.

Table 5 shows the breakdown by grades of the students' performance on the Prueba de Lectura.

TABLE 5

Prueba de Lectura Gains by Grade

Grade	N	Mean Pre NCE	Mean Post NCE	Mean NCE gain
1	36	51.36	51.83	+0.47
2	46	50.51	54.56	+4.05
3	59	50.31	50.04	-0.27
4	50	49.65	51.10	+1.45
5	19	51.01	52.03	+1.02
Total	210	50.57	51.91	+1.34

As Table 5 shows, for all grades (with the exception of grade 3 where a slight NCE drop occurred) there were NCE gains. Further, as a total,

the mean NCE gain was greater than zero. All the normal curve equivalencies are at or about the 50th percentile, and the NCE gain of greater than zero indicates the students' progress in vocabulary and comprehension of Spanish progressed relatively equal to, or slightly superior to the National norming sample.

Objective 4. By May 15, 1981, 70% of participating students will exhibit positive attitudes toward their own culture, as well as other cultures represented in the classroom, as measured by the Oklahoma City Inferred Cultural Attitude Scale.

A total of 432 students in grades K-5 were scored on the Attitude Scale by their teachers. As mentioned earlier, the four point scale ranges in values from "never" displaying a particular positive attitudinal indicator (1), to "always" displaying a positive attitude (4). There are eight situations in which each student is rated, and the total scores may range from 8 to 32 (with the average scores between 1 and 4). An mean score of 1-2.0 is considered a "negative" attitude, 2.1-3.0 "neutral", and 3.1 to 4.0 "positive". Table 6 shows the ratings by teachers for the fall and spring.

TABLE 6

Oklahoma City Inferred Cultural Attitude Scale

Dates	N	% rated Positive	% rated Neutral	% rated Negative
Fall 1980	432	84.5%	14.1%	1.4%
Spring 1981	432	87.5%	12.5%	0%

Summary

The LAS test was utilized to represent the gains in English and Spanish oral linguistic proficiency by participating students in grades K-5. Pretest results revealed, as would be expected, that a much larger percentage

of students began the year with lower competency levels in English than Spanish. Within the constraints noted, the objective of raising 70% of these LEP students oral proficiency in English was met, as approximately 79% made a one level (standard deviation) gain or better during the year. In analyzing the gains of the very low competency students during the year, highly significant ($p < .001$) gains were noted at each grade level (K-5), as well as substantially larger raw score mean gains than the overall population. In all grades (K-5), the mean gains in English oral proficiency were highly significant ($p < .002$), for all groups of students, ranging from extreme "minimal" production groups to "near perfect" production groups (group labels represent "level" distinctions as specified by the LAS test norms).

The same students' performance on LAS Spanish oral proficiency was not as substantial as their English performance, yet in most cases (and most grades) produced significant gains. Within limitations, approximately 44% (less than the 70% specified by Objective 1) of the students showed a one level (standard deviation) gain or better during the year. Basically, only at grade 2 and grade 5 did they not show significant (at least $p < .02$) mean gains between pre and posttesting. This lower percentage of gains in Spanish appears to be a reflection of the emphasis of the Title VII program toward promoting English acquistion by these LEP students, in an attempt to make them more able to compete and excel in English speaking classrooms. It is important to note, that although the students did not improve as dramatically on the Spanish portion of the LAS as they did on the English portion, substantial gains in Spanish proficiency were reported. This is supported by the data from the Prueba de Lectura, Serie Interamerica results, which showed that students' vocabulary and comprehension reading skills gains in

Spanish, were equal to or higher than the national norming samples for almost every grade. For each grade, first through fifth (except 3rd grade, which had a slight NCE drop) the NCE gains were greater than zero, and overall, for all students, across all grades, showed a NCE gain of +1.34 (meeting Objective 3). Any NCE gain greater than zero indicates that progress was made in excess of predicted progress based on national norms for the year.

For the early elementary students (grades K-2), the results of the Boehm Test of Basic Concepts showed that overall, approximately 80% made gains during the year thereby meeting Objective 2. The BTBC reportedly measures acquistion of basic concepts, which are presumed to be prerequisites for language learning, and therefore predictors of later school success. Further, regardless of whether the students dominant language was English or Spanish, the mean raw score gains in each grade (K-2) were highly significant (most less than $p < .001$) for the year.

Finally, although the teacher ratings are totally subjective they indicate the Objective 4 was met, since the Bilingual teachers and aides rated 87.5% of the Title VII students as having a positive attitude toward their own, as well as the other cultures represented in their classrooms (an increase of 3% over their rating at the start of the year).

Participants' Perceptions of the Program

School Administrators. The principals at the school sites all reported they had attended inservice training activities presented by the Title VII program. All believed that the Title VII staff made an effort to provide information about the purposes and services available through the program, and their Title VII building staff regularly attempted to transmit infor-

mation to them concerning problems or progress in working with the students. They also felt that the aides were invaluable in providing an interface between the staff and the Spanish speaking students, and their Spanish speaking parents. As far as recommendations for improvement, they felt the program should be continued, with emphasis on new and updated materials, and further inservice and training for teachers and aides at the building level.

Parents. A total of 102 parents from the four target schools responded to the Title VII parent survey. Of these 102, 91% stated they had received information (in both Spanish and English) throughout the year, explaining both the purpose and goals of the Oklahoma City Public Schools Bilingual Education Program (see Appendix A for description of the survey form, and specific percentages of responses to each item). Further, between 81-94% responded that they had been notified by their childrens' school in English and Spanish of occurrences such as report cards, parent conference reports, notes from school, necessary immunization information, and parent committee meetings.

The vast majority (91%) of the parents felt that their child had benefited from the Bilingual Education program, and they felt it was important that their children were being taught both English and Spanish, as they wanted their children to continue their bilingual capabilities. Most of the parents volunteered that they had witnessed improvements in their childrens' progress in school, and are pleased with the program. A large number of them also commented that they were very grateful for the schools' concern and understanding, and appreciated receiving needed information in Spanish.

As for recommending changes to improve the Bilingual Education services, all of the parents who responded indicated they wanted the progress to continue. A representative statement was they feel the children are making

progress, and the Bilingual program enables the parents to communicate with the school.

None of the parents stated the program should be discontinued, and only 2 of the 102 suggested that only English be taught. No other recommendations for improvement were noted.

Staff training and perceptions. The Title VII staff attended inservice training and workshops throughout the year, ranging in duration from 1-2 days, to a 2-week pre-school workshop. Between 75-100% of the participants on each occasion, rated the quality of the workshop good to very good. Roughly the same percentages felt the emphasis of the workshops were directly applicable to their work, and most materials and topics were relevant and necessary. The majority of individuals reported each time that more training and assistance would be useful, and suggested future topic areas included, (1) more training to teach Spanish, (2) introduction of new materials, (3) more application of ESL in science, math and literature, (4) stress management, (5) more training in arts, crafts, and games, and (6) more samples of visual presentations for ESL. (Full workshop evaluation summaries for the various inservice training and workshop sessions and available upon request.)

Parent English Classes. A final aspect of the Bilingual program involved ESL training for parents of Title VII students, weekly at the Capitol Hill Library. The classes were conducted in the evening, and approximately 50 parents were "regular" participants. Thirty-two parents returned the Title VII Bilingual Education Parent English Classes Survey (see Appendix B for percentage of responses to each question). Of the 32, 87% had attended the classes more than three times, and almost 60% of those more than 5 times. The parents responded they basically liked everything about the classes,

reported nothing was unsatisfactory, and wanted to continue. The majority of them (80%) felt the classes had helped them in their everyday communications, and had helped them in their jobs. Most felt they needed to learn more.

Summary. The vast majority of responses by all participants and parents in the surveys were favorable. School administrators, staff, and parents felt the program was beneficial to the students, enabled them to show progress in school, and provided the ability for much better interaction between the students and teachers, as well as the parents and their children's school. The parents were appreciative of their children's progress in English acquisition, and expressed their desire to maintain their children's Spanish proficiency as well. The parents also felt the schools had kept them well informed as to student progress. All respondents were relatively unanimous in their desire to see the program continue.

Recommendations

1. In the evaluator's opinion, given the data (results) and the favorable comments by participating staff and administrators, and the overwhelming favorable perceptions by the participating student's parents, Federal funding should continue to be sought, and/or alternate means for financing the continuation of the Title VII program should be pursued.

2. Within the obvious monetary constraints, emphasis should also be placed on providing new and updated materials, and instructional aids and devices, as mentioned by both staff and school administrators.

3. Objectives should be revised to more accurately reflect Program emphasis. For example, based on the history of the data, and the stated program emphasis on English acquisition by LEP students, Objective 1 should be revised to reflect different expectations of performance by students taking the LAS tests. Different growth parameters would be expected on the English and Spanish portions, and should be more closely equated to stated yearly objectives.

4. Revise or eliminate Objective 4. The rating of the students' positive cultural awareness is totally subjective, and the device itself does not provide particularly meaningful data, or accurate measurement of the desired behavioral attributes.

APPENDIX A

OKLAHOMA CITY PUBLIC SCHOOLS
PLANNING, RESEARCH, AND EVALUATION DEPARTMENT

BILINGUAL TITLE VII PROGRAM
PARENT QUESTIONNAIRE
1980-81

1. Have you received any information explaining the purpose and goals of the Oklahoma City Public Schools Bilingual Program?

91.2% Yes 2.9% No 5.9%

2. Has your child's school communicated to you in English and Spanish in any of the following manners: (check any or all as appropriate)

94.1% Report Card

93.1% Parent Conference Reports

84.3% Notes From School

81.4% Immunization Information

83.3% Parent Committee Meeting

___ Other:

_____

3. Do you feel your child has benefited from the Bilingual Education Program?

91.2% Yes 5.9% No 2.9%

Please explain:

_____

_____

_____

_____

4. Please suggest any ways you think the Bilingual Program could be made more effective for you or your child.

_____

_____

_____

_____

APPENDIX B

OKLAHOMA CITY PUBLIC SCHOOLS
PLANNING, RESEARCH, AND EVALUATION DEPARTMENT

TITLE VII BILINGUAL EDUCATION
PARENT ENGLISH CLASSES SURVEY
1980-81

We would like you to answer the following questions so we can determine how we have done in meeting your needs for English instruction, and what we can do to improve services to you in the future. Please return the completed form in the enclosed self-addressed and stamped envelope. Thank you for your help.

CHECK ONE

1. How many times did you attend the parent English classes at Capitol Hill Library?

3.1% Once
3.1% No Resp.
6.2% Twice
28.1% Three to Five Times
59.4% More than Five Times

2. What area of English instruction would you like most to see covered in the classes?

31.2% Reading in general
43.7% Writing, in general
78.1% Speaking, in general
21.9% Applying for jobs
31.2% Dealing with child's school and teacher
____ Other (what?)

_____

_____

_____

3. What did you like most about the English classes you attended?

4. Was anything unsatisfactory about the English classes you attended?

5. Is there anything you would like to see added or changed in the English classes?

6. Do you feel this class helped you in your everyday communications with others?

21.9% - Yes, helped "a lot" in everyday communications and at their job.

59.4% - Yes, helped them.

18.7% - Yes, helped them but need to learn more.